Solid Axle Industries
Installation Instructions for the

Dodge SpynTec Hub Conversion Kit
2000-Current

Solid Axle Industries | 12356 Mahoning Avenue | North Jackson, Ohio 44451 | 1.888.290.AXLE

Warning - Installation should only be performed by a professional mechanic.

During the installation of the Spyntec front hub conversion kit, always ensure the vehicle is properly supported and prevented from rolling. Do not use a jack to support the vehicle. Always use properly rated jack stands in good working order. Make sure all vehicle work is performed on a hard, level, and stable surface. An unstable vehicle can fall and can kill or injure you.

Always wear proper safety gear. Debris can fall from the vehicle as well as tools failing. Wear your safety goggles.

For all fastener torque values and disassembly proceedures, refer to the Jeep Service Manual. These are available from your Jeep dealership. Torque values and disassembly / assembly pictures shown are only for reference.

Before starting inspect that the length of stud supplied is long enough for the wheels chosen. Thread engagement should be at least equivalent to the diameter of the stud.

As always, re-torque lug nuts to manufacturers' specifications after 50 miles. It's also a good preventative measure to do so after heavy off roading.

SOLID AXLE PRODUCTS

LIMITED LIFETIME MATERIAL AND WORKMANSHIP WARRANTY

Solid Axle Industries, LLC warrants to the original purchaser that the Solid Axle Products covered by this Warranty as specified below to be free from defects in materials and workmanship under normal off road uder this Warranty shall be limited to the repair or exchange of any part or parts which may thus prove defective under normal off road use and service by the original purchaser, and which our examination shall disclose to our satisfaction to be thus defective. In order to claim the Warranty, you must return the parts in question, shipping charges prepaid, to Solid Axle at the address given below or a factory authorized servicing distributor, together with your name, address, telephone number, a brief description of the defect and your proof of original retail purchase for each product returned for warranty service. Exclusions from this Warranty are those specified below. Only products which are sold bearing the "Solid Axle" trademark are covered by this Warranty. Products or components expressly excluded below are not covered by this Warranty. If the product or component has been damaged by use in racing competition or by accident, abuse, collision, overloading, misuse, misapplication, improper installation, improper service or modification of the product without written permission from Solid Axle, it is not covered by this warranty.

Except as expressly stated herein, there are no other warranties, expressed or implied, including implied warranties of merchantability and fitness for a particular purpose. Any implied warranty of merchantability or fitness for a particular purpose which by law may not be excluded is limited in duration to one (1) year from the date of original retail purchase of the product.

The Warranty and the remedies set forth above are exclusive and in lieu of all others, oral or written, expressed or implied. No Solid Axle dealer, agent or employee is authorized to make any modification, extension or addition to this Warranty.

In no event is Solid Axle responsible for special, incidental or consequential damages resulting from any breach of Warranty, or under any other legal theory, including, but not limited to, lost profits, down time, goodwill, damage to or replacement of equipment and property, loss of use of the p6oduct of any associated equipment, or cost of substituted products.

The above exclusion or limitation may not cover you because some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts. This Warranty gives you specific legal rights and you may also have other rights that vary from state to state.

Solid Axle reserves the right to change Product design without notice or obligation to modify previously manufactured products.

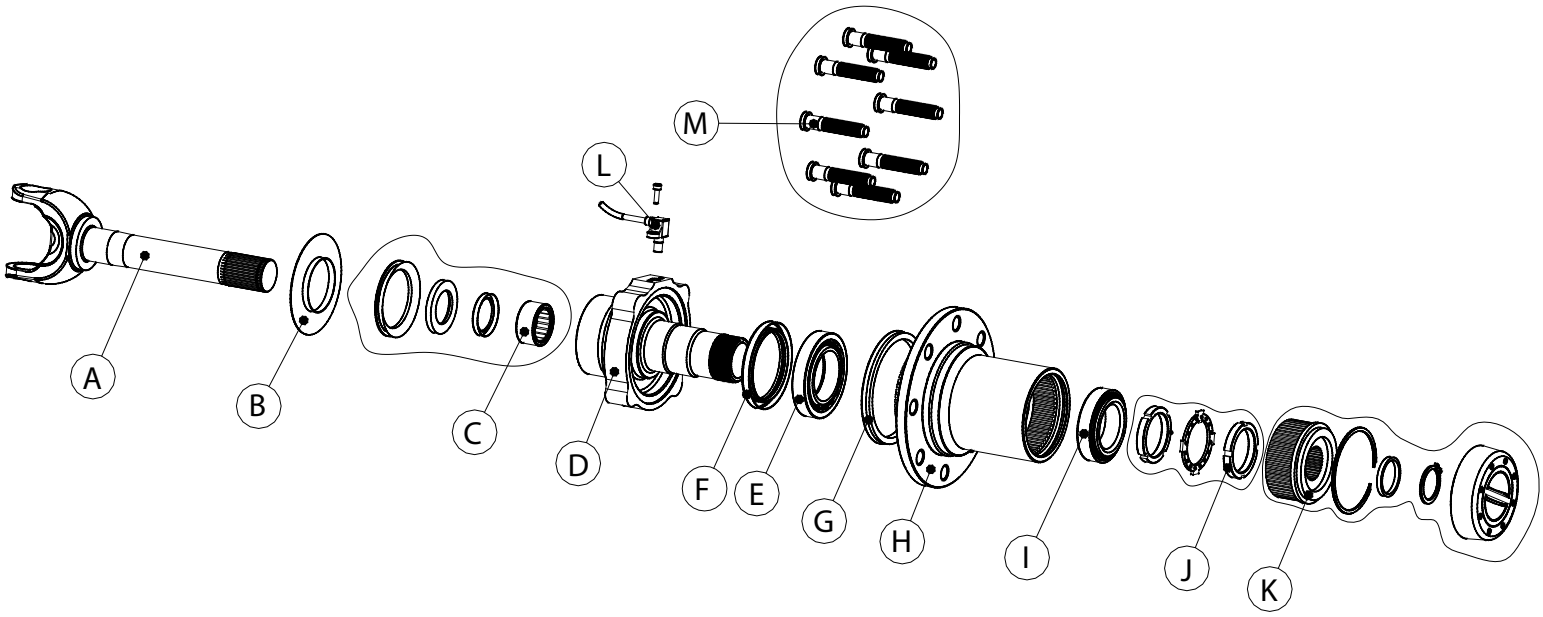
Warranty Claims and Products returned for warranty service should be sent to:

SOLID AXLE INDUSTRIES, LLC
12356 Mahoning Avenue
North Jackson, Ohio 44451
(330) 538-9791

Coverage and Exclusions to this Warranty

Exclusions to this warranty:
Finish, u-joints, seals, bearings, rotors, studs

Products covered by this warranty:
SpynTec Hub Conversion Kit



Key	Description	SAI Part Number	Manufacturer Part	Quantity
A	35 Spline Stub Shaft	SAI 030.20.004.03		2
B	Mud Slinger	SAI 030.20.005.01	Spicer 37308	2
C	Inner Spindle Bearing Kit	SAI 030.20.006.01	Spicer 700014X	2
D	Spindle	SAI 050.20.001.05		2
E	Inner Wheel Bearing	SAI 050.20.003.10	Timken 387A	2
	Inner Wheel Race	SAI 050.20.003.11	Timken 382A	2
F	Hub Seal	SAI 050.20.003.14	Chicago Rawhide CR29887	2
G	V Lip Seal	SAI 050.20.003.15	Chicago Rawhide CR401100	2
H	Hub	SAI 050.20.002.09		2
I	Outer Wheel Bearing	SAI 050.20.003.12	Timken LM104949	2
	Outer Wheel Race	SAI 050.20.003.13	Timken LM104911	2
J	Spindle Nut Kit	SAI 050.20.005.01		2
K	Lockout Hub Assembly	SAI 050.20.020.01	Mile Marker 459 S/S	1
L	Factory ABS Sensor	Reuse		2
M	Wheel Stud	SAI 050.00.004.01	Dorman 610-471	16

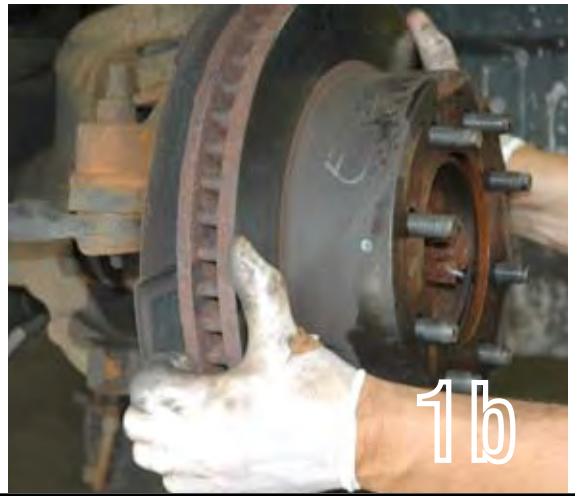
Tools and Supplies Needed:

Floor Jack
Jack Stands
5 mm Hex Wrench
14 mm 12 Point Socket
18 mm Socket
1-11/16 Socket
Deadblow Hammer
Flat Blade Screw Drivers
Grinder or Belt Sander
Spindle Nut Socket
Snap Ring Pliers
Wheel Bearing Grease
Emery Cloth
Anti Seize

1a- After the wheel is unbolted, the brake caliper will need to be removed. A 18 mm socket or wrench will be needed.

1b -The factory rotor can now be removed.

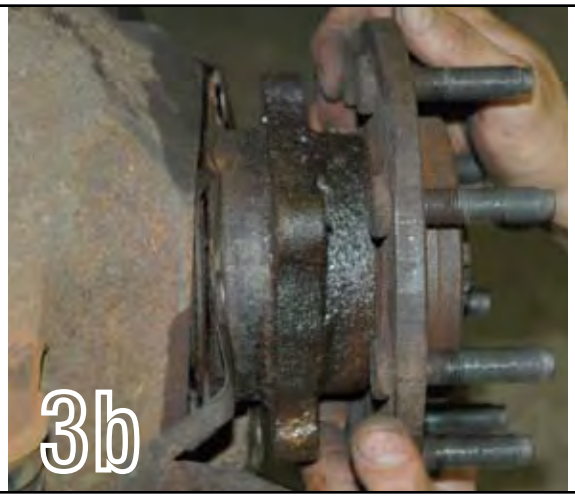
Brake pads may contain asbestos. DO NOT use compressed air. Use a readily available brake cleaning fluid.
Asbestos has been found to be a cancer causing agent.



2a -Next, a 1-11/16 socket and ratchet will be required to remove the axle nut, you will see four 6 or 12 point screws clamping the unit bearing to the knuckle. Carefully remove these (18 mm 6 point or 14 mm 12 point socket) as they will be reused during re-assembly. Sometimes a slight tap on the socket will ensure proper seating for 12 point spindle screws.

Us a 5 mm hex key to remove the screw from the sensor, but do not remove the sensor at this time as it may be damaged. Carefully tap on the unit bearing to seperate it from the knuckle. Pay close attention to not ruin the metal dust shield as this will be reused. Once the bearing is seperated from the knuckle, remove the sensor by pulling it straight out.

SEE NOTE ON PAGE 8



With the sensor removed the shaft assembly can now be removed.

4a -Clean the knuckle bore and surface with fine emery cloth or a brush to remove any scale.

5a -Using a small screw driver and hammer, tap the ujoint retaining clips from the inner axle shaft.

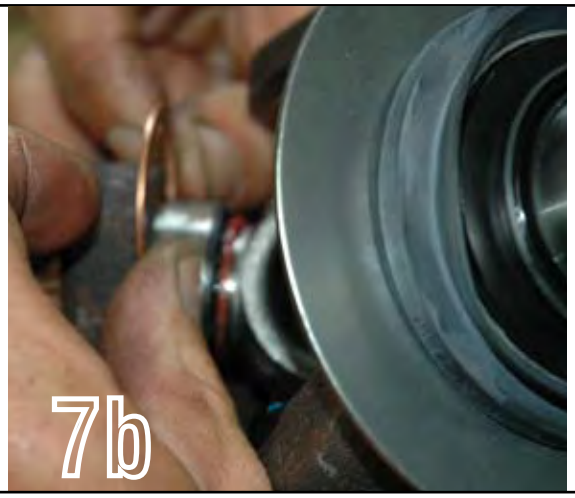
5b -Once the clips are removed go ahead and press or tap the ujoint the u-joint from the shaft.

6a -Remove the caps from the ujoint and lightly grease the needle bearings.

6b - Gently align the cap to the ujoint cross paying close attention not to move the needle bearings from the wall of the cap.

7a -A gentle tap with a small hammer will seat the cap.

7b - Go ahead and repeat the process for the other side of the ujoint. Tap the caps down until the c-clip groove can be seen. Snap the c-clip onto the cap and repeat the process for the inner shaft.



8a -Put a light coat of anti-seize on the knuckle face and bore. This will help with removal later on.

9a/9b -The assembled shafts can be greased at the seal surface and slid into the housings.

10a -Slide the V lip Seal over the mud slinger as shown. Apply a thin film of grease on the lip.

10b -Slide the thrust washer with the chamfer side toward the center of the vehicle. This will sit flat up against the shaft. If installed incorrectly, there will be a gap between the thrust washer and the shaft.

11a -Slide on the factory brake dust shield and pilot the spindle in the knuckle. Route the ABS sensor through the metal dust shield.

11b - Install the sensor BEFORE the spindle is completely seated in the knuckle. Ensure once again that the routing of the cable will not get cut on the bracket. The sensor will be a tight fit into the spindle. Make sure the sensor hole is alligned with the tapped hole.

12a/12b -Cut the screws back by approximately 3/8 of an inch. The final measurement from the backside of the screw head to the end of the screw should be around 1.80 inches.

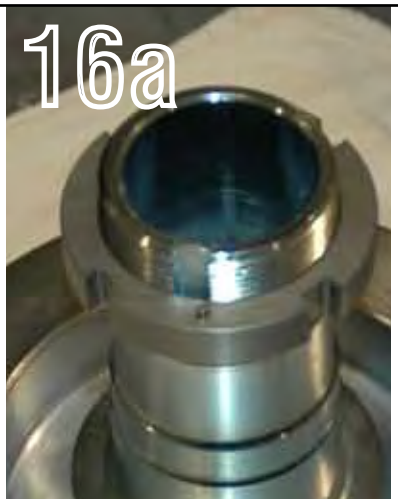
13a -Anti seize the spindle screws before installing.

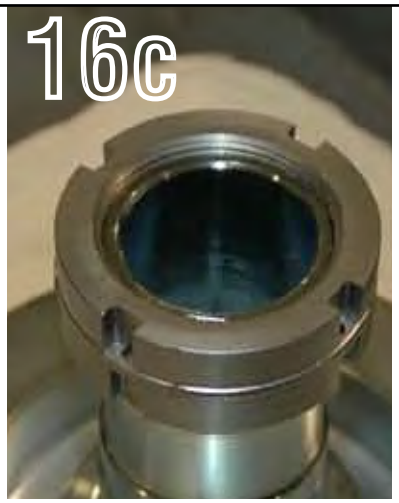
Hand thread the knuckle screws and work your way around in a circular pattern tightening them evenly. Tighten the screws to 85 ft-lbs.

14a -The v-lip seal is installed on the hub from our factory. Put a thin film of high quality grease on the lip of the v-lip seal.

15a -Slide the hub and rotor assembly onto the spindle. Pay close attention that the inner hub bearing seats against the shoulder on the spindle.

15b -Push the outer wheel bearing onto the spindle.

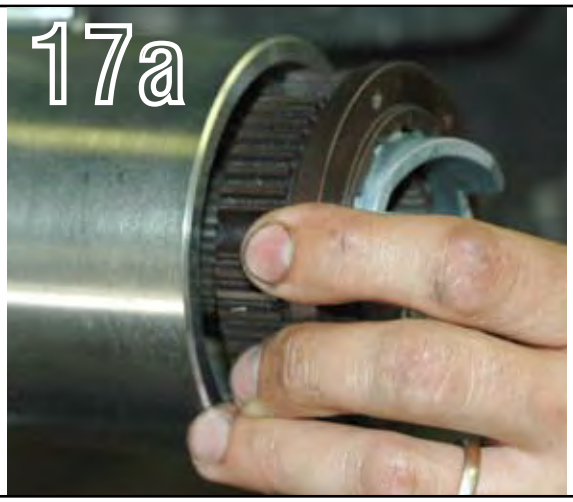




Before going into the installation of the spindle nuts onto the spindle. Look closely at the configurations to the left. 16a shows the nut with the pin facing toward the outside of the vehicle. This is so the tab washer in 16b can lock the nut in place keeping in from turning. 16c is simply a jamb nut pinching the nut washer assembly together.

16d- Thread the inner spindle nut onto the spindle. Using a spindle nut socket and torque wrench, tighten the spindle nut (photo 16a) to 50 ft-lbs. Do not over tighten the nut. Rotate the hub back and forth while tightening. Back off the spindle nut 1/4 turn. Slide on the lock washer (photo 16b). Make sure the pin is aligned with a hole on the nut. Thread the outer nut onto the spindle and torque to 125 - 150 ft-lbs.

There should be no endplay in the assembly at this point. If there is, repeat the process.



17a -Slide the lockout hub body into the wheel hub. You may have to slightly rotate the hub to get the splines located.

17b -Install the large snap ring into the groove in the wheel hub.

18a -Install the spacer onto the shaft.

18b -Install the axle snap ring using snap ring pliers. A pry bar may have to be used from the backside of the knuckle to shift the shaft forward.

19a -Lay the large o-ring onto the hub body.

19b -Lightly grease the o-ring on the hub dial body. Set the dial in the free position and align the holes in the dial to the tapped holes in the hub body. Slide the orings on the hex screws and torque to **25-30 in-lbs**.

20a -Slide the rotor onto the face of the hub. Make sure it is fully seated.

20b -Slide the caliper assembly over the rotor. Tighten the caliper mount screws to factory specifications.

The Spyntec assembly is complete at this time. You are ready to place the wheel on and torque down the lugnuts. Make sure you retorque the lugnuts after 50 miles as well as after heavy offroading.

Warning - If your sensor has pulled out of it's protective plastic cover, the sensor needs replaced with a new one. Failure to do so will result in a malfuction of the ABS system.